

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 7; the phrase "the divided booths" lacks proper antecedent basis. For the purpose of examination the phrase "the pair of divided booths" is assumed. In claim 1, line 11; the phrase "the divided booths" lacks proper antecedent basis. For the purpose of examination the phrase "the pair of divided booths" is assumed. . In claim 1, line 11; the phrase "the opening of the divided booth" lacks proper antecedent basis. For the purpose of examination the phrase "the openings of the pair of divided booths" is assumed.

In claim 2, line 2; the phrase "the plurality of pairs of divided booths" lacks proper antecedent basis. For the purpose of examination the phrase "the pair of divided booths" or "a plurality of pairs of divided booths" is assumed.

In claim 5, line 2; the phrase "a plurality of divided booths" lacks proper antecedent basis. For the purpose of examination the phrase "the pair of divided booths" is assumed.

In claim 9, line 2; the phrase "a plurality of divided booths" lacks proper antecedent basis. For the purpose of examination the phrase "the pair of divided booths" is assumed.

3. In claim 3, line 4; the phrase "the opening of the divided booth" lacks proper antecedent basis. For the purpose of examination the phrase "the openings of the pair of divided booths" is assumed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Otani et al (US 5,417,765).

As to claims 1-7, Otani et al discloses (see Figs 1 and 5-7) a powder coating system for coating an article carried along a carrying path within a coating booth comprising a pair of divided booths (15) arranged on both sides of the carrying path to be each movable between a coating position close to the carrying path and a cleaning position retracted from the carrying path, respective sides of the pair of divided booths opposed to the carrying path having opening to form a coating booth (15) surrounding the article; and closing means for covering the openings of the divided booths retracted to the cleaning position and cleaning the interior surface (see column 4, line 60-column 5, line 8 and Figs 4-7 for a pair of cleaning stations 56a, 56b covering most of the openings of the divided booths 15).

Regarding claim 11, Otani et al discloses (see Fig 1) a reciprocator (brackets 50) to which a coating gun is mounted.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otani et al (US 5,417,765) in view of Trevisan (US 5,421,885) or Reiss (US 5,861,062)

Otani et al lacks teaching a cyclone connected to the divided booths or to the coating booth. Trevisan discloses a cyclone (assembly 29-32) and Reiss discloses (see Fig 1) a cyclone (13). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to include a cyclone in Otani et al to recirculate or recycle the coating powder in efficiently coating the substrate.

9. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiss (US 5,861,062) in view of Otani et al (US 5,417,765).

With respect to claims 1-7, Reiss discloses (see Fig 1) a powder coating system for coating an article carried along a carrying path within a coating booth comprising a pair of divided booths (1, 2) arranged on both sides of the carrying path to be each movable between a coating position close to the carrying path and a cleaning position retracted from the carrying path and respective sides of the pair of divided booths opposed to the carrying path having opening to form a coating booth (1) surrounding the article. Reiss lacks teaching a closing means or a pair of cleaning booths for covering the openings of the divided booths retracted to the cleaning position and cleaning the interior surface. However a cleaning booths (stations) cleaning retracted coating booths are known in the art; for instance as shown by Otani et al (see column 4, line 60-column 5, line 8 and Figs 4-7 for a pair of cleaning stations 56a, 56b covering most of the openings of the divided booths 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a cleaning stations closing the openings of coating booths and cleaning the interior surface of the coating booths to achieve optimum efficiency by utilizing multiple coating and cleaning stations as taught by Otani et al (see column 2, lines 55-60).

As to claims 8-9, Reiss discloses (see Fig 1) cyclone (13) for the coating booths.

10. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otani et al (US 5,417,765) or Reiss (US 5,861,062) in view of Trevisan (US 5,421,885) or Fischli et al (US 5,690,995).

11. Reiss teaches pulsating compressed air blown to the spraying device (see column 5, lines 59-64). Otani et al lacks teaching divided booths provided with a blowoff device. Fischli et al teaches a blowoff device (air nozzles 150; see column 8, lines 25-39 and fig 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a blowoff nozzle in Otani et al to clean the coating booths and the guns by blowing the powder from the surfaces of the booths and the gun.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YEWEBDAR T. TADESSE whose telephone number is (571)272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yewebdar T Tadesse/
Primary Examiner, Art Unit 1792